

METHOD OF PRODUCING A SAMPLE OF A TREATMENT OUTCOME  
ON A TEXTILE SPECIMEN

The present invention relates to a method of the type according to the definition of the species of Claim 1.

5 It is customary to demonstrate for the client of a textile finishing operation the outcome of a treatment on a textile specimen using a certain treatment bath on the basis of a laboratory specimen.

10 However, the machine used as equipment in a laboratory is different from a production machine, so even today there are still repeatedly differences between an outcome obtained on a laboratory specimen and the ultimate production outcome. This is related to the fact that the treatment conditions on a laboratory dyeing machine, for example, which processes a web of a smaller width and only in laboratory dyeing apparatuses, are different from those in a production plant (see the technical book by M. Peter and H. K. Rouette "Grundlagen der Textilveredelung" [Principles of Textile Finishing], 13th edition, German Fachverlag GmbH  
15 [German Technical Publishers] (1989), pages 494/495 and 826/827). Actually the dyer or other textile expert will have certain options for approximating the desired result through modifications and conversion factors on the basis of long years of experience. Due to novel materials, especially viscose and modifications thereof, which also occur as admixtures in cotton articles and are critical in terms of dyeing results because the bath is absorbed so  
20 rapidly, there has been a decline in the rate of successes achieved in obtaining a desired dyeing in a first run on a production dyeing machine after a laboratory sample has been submitted and accepted.

25 The object of the present invention is to improve the relevance of laboratory dyeings.

This object is achieved through the present invention as characterized in Claim 1.

30 The object of the present invention is not the leader or the trailer per se. These have been conventional in textile finishing for a long time (see Internationales Lexikon [International Lexicon] "Textilveredelung + Grenzgebiete" [Textile Finishing and Borderline Regions] by

C. H. Fischer-Bobsien, 4th edition (1975), A. Laumannsche Verlagsbuchhandlung [A. Laumann Book Dealers], page 1959). Instead, the present invention relates to production of dyed samples under conditions equivalent to subsequent production dyeing on the production machine, so that there cannot be any deviations due to differences in equipment between the laboratory dyeing and the production dyeing. However, dyeing a production width of fabric must proceed at an economically justifiable cost. In a dyeing plant a certain minimum length of a web is necessary so that it can run through the production installation and be conveyed properly. However, it would be too expensive to produce this minimum length of the actual web material.

For this reason, the required minimum length is produced artificially by lengthening the actual web section which represents the goods at the front and rear ends with a leader and a trailer which have only the function of guiding the sample.

A web material that is not absorbent for the dye bath or treatment bath is preferably used for the leader and the trailer (Claim 2), and in particular a suitable plastic film (Claim 3), which is joined to the textile specimen by a suitable method such as sewing or gluing across the width of the web, is used. The textile specimen need only be relatively short, e.g., a few meters (Claim 4).

An important embodiment of the present invention is characterized in Claim 5, according to which an applicator device having an especially low bath content is used for the treatment agent. "Especially low" is understood to refer to an amount on the order of 5 to 15 liters in an applicator device for the conventional width of approximately two meters of textile web.

The low bath content makes it possible to adjust the quantity of bath to the needs of the relatively short section of a web which functions as the specimen, so that not only the demand for expensive web material but also the bath losses are minimized in production of the specimens.

An applicator device suitable for this purpose is described in German Patent 37 33 997 C3.

The sample, which is lengthened by adding a leader and a trailer, has the same width as the production goods, and after approval of the sample, it is dyed in the production installation which produces the commercial yardage without any risk of deviations.

The leader and trailer may optionally be separated from the specimen again after dyeing and reused repeatedly.

The present invention is also embodied in a textile sample according to Claims 5 through 7.

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Although dyeing is the most important example of a "treatment" in the sense of the present invention, the present invention is not limited to that case. There are also problems with obtaining realistic laboratory samples in the case of other sampling media which are not dye baths, and these problems can be overcome with the means according to the present invention.

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The drawing illustrates a textile sample according to the present invention in a schematic perspective view.

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The sample, labeled as 10 on the whole, includes a section 3 of a web whose width B corresponds to the full production width, which may be on the order of two meters in the case of a textile web.

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Length L of web section 1 is just as long as needed for a suitable specimen, i.e., a few meters, e.g., 5 meters. The cost of a sample is still justifiable at this length.

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Web section 1 having a relatively short length L cannot be passed through a production dyeing installation because it is too short and cannot be gripped by the guide elements of the production dyeing installation, so a leader 6 and a trailer 7 are attached to ends 2, 3 of web section 1 located in direction 8 of travel along joining lines 4, 5 which run across direction 8 of travel and may be designed as sewn seams, adhesive sites, or something similar. In this way, the relatively short section 1 of the expensive web material is lengthened, so that the guide elements of the dyeing installation can grip it securely and it can pass through the dyeing installation. The sample may thus be passed through the same pad dyeing machine and the same subsequent steamer as well as the same washing installation as those used for the actual dyeing in the production width and length. This prevents the risk of deviations between the outcome of the sample and that of the production yardage.

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